

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-28. (Cancelled).

29. (Currently Amended) A laser apparatus for generating laser light to be transmitted through an optical transmission system, comprising:

a laser that emits light that is substantially linearly polarized when in use;

a quarter wave retarder plate that is positioned with respect to the laser so that:

light emitted by the laser is circularly polarized by the wave retarder plate so as to have a predetermined handedness before reaching an optical transmission system; and

light reflected back toward the laser has a linear polarization, after passing through the quarter wave retarder plate a second time, that is orthogonal to the linearly polarized light emitted by the laser; and

a linear polarizer that is positioned between the laser and the quarter wave retarder plate so as to:

permit the linearly polarized light emitted by the laser to pass through the linear polarizer; and

block light reflected back toward the laser by the optical transmission system fiber that has a linear polarization that is orthogonal to the linearly polarized light emitted by the laser.

30. (Original) The laser apparatus as recited in claim 29, wherein the linear polarizer is disposed adjacent to a surface of the quarter wave retarder plate facing the laser.

31. (Original) The laser apparatus as recited in claim 29, further comprising a lens that is positioned so that the quarter wave retarder plate is disposed between the lens and the laser.

32. (Original) The laser apparatus as recited in claim 29, further comprising a lens that is positioned between the quarter wave retarder plate and the laser.

33. (Original) The laser apparatus as recited in claim 29, further comprising a hermetically sealed housing within which the laser is disposed, the housing having a window through which the light emitted by the laser is transmitted.

34. (Original) The laser apparatus as recited in claim 33, further comprising a thin film antireflective coating on at least one surface of the window.

35. (Original) The laser apparatus as recited in claim 33, the quarter wave retarder plate comprising a portion of the hermetically sealed housing.

36. (Original) The laser apparatus as recited in claim 35, the quarter wave retarder plate comprising the window of the hermetically sealed housing.

37. (Original) The laser apparatus as recited in claim 35, further comprising a thin film antireflective coating on a surface of the quarter wave retarder plate.

Claims 38 through 55. (Cancelled.)

56. (New) A method for reducing reflections of laser light reflected from the end of an optical discontinuity, the method comprising:

operating a laser to emit light that is substantially linearly polarized when in use, the laser having an oscillation mode;

transmitting the light to an optical discontinuity such that at least a portion of the light is reflected by the optical discontinuity; and

altering the polarization of at least one of the emitted light or the reflected light so that the reflected light is substantially linearly polarized orthogonal to the emitted light so that the reflected light does not couple back onto the oscillation mode of the laser.

57. (New) The method as recited in claim 56, wherein altering the polarization of at least one of the emitted light or the reflected light so that the reflected light is substantially linearly polarized orthogonal to the emitted light comprises:

converting the linear polarization of emitted light to be circularly polarized with a predetermined handedness before reaching the optical discontinuity.

58. (New) The method as recited in claim 57, wherein altering the polarization of at least one of the emitted light or the reflected light so that the reflected light is substantially linearly polarized orthogonal to the emitted light comprises:

converting the circularly polarized reflected light having an opposite handedness than the emitted light to be linearly polarized such that it is orthogonal to the emitted light.

59. (New) The method as recited in claim 57, wherein altering the polarization of at least one of the emitted light or the reflected light so that the reflected light is substantially linearly polarized orthogonal to the emitted light comprises:

passing the emitted light through a quarter wave plate; and
passing the reflected light back through the quarter wave plate.

60. (New) The method as recited in claim 59, wherein the method does not include any polarizing element positioned between the laser and the quarter wave plate so that light reflected back toward the laser is unimpeded by any polarizing element but does not couple back onto the oscillation mode of the laser.

61. (New) The method as recited in claim 59, wherein altering the polarization of at least one of the emitted light or the reflected light so that the reflected light is substantially linearly polarized orthogonal to the emitted light comprises:

passing the emitted light through a lens that is positioned so that the quarter wave plate is disposed between the lens and the laser.

62. (New) The method as recited in claim 59, wherein altering the polarization of at least one of the emitted light or the reflected light so that the reflected light is substantially linearly polarized orthogonal to the emitted light comprises:

passing the emitted light through a lens positioned between the quarter wave plate and the laser.

63. (New) The method as recited in claim 56, wherein operating a laser to emit light that is substantially linearly polarized when in use comprises:

placing a linear polarizer in the path of the emitted light.

64. (New) The method as recited in claim 63, further comprising blocking the reflected light having a linear polarization that is orthogonal to the linear polarization of the emitted light.

65. (New) The method as recited in claim 63, wherein altering the polarization of at least one of the emitted light or the reflected light so that the reflected light is substantially linearly polarized orthogonal to the emitted light comprises:

passing the emitted light through a quarter wave plate positioned such that the linear polarizer is in between the laser and the quarter wave plate.

66. (New) The method as recited in claim 65, wherein the linear polarizer is adjacent to a surface of the quarter wave plate.

67. (Ncw) The method as recited in claim 56, wherein the optical discontinuity is an optical fiber.